



# Louisville Metro Government Office of Sustainability Urban Heat Island Reduction

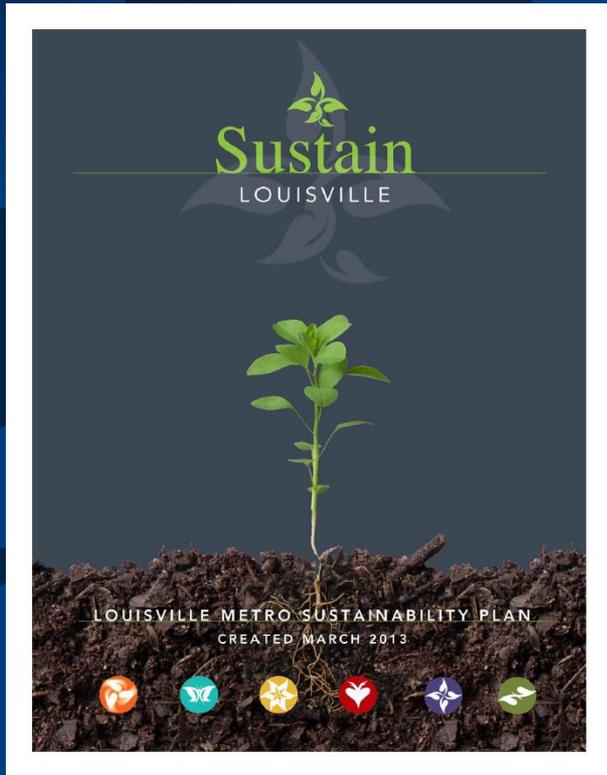
**Maria Koetter, Director of Sustainability**  
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LOUISVILLE METRO DEPARTMENT OF  
ECONOMIC GROWTH &  
INNOVATION

# Office of Sustainability

## *Sustain Louisville 2012*



### *Six focus areas – 19 Goals*

- Energy
- Environment
- Transportation
- Economy
- Community
- Engagement

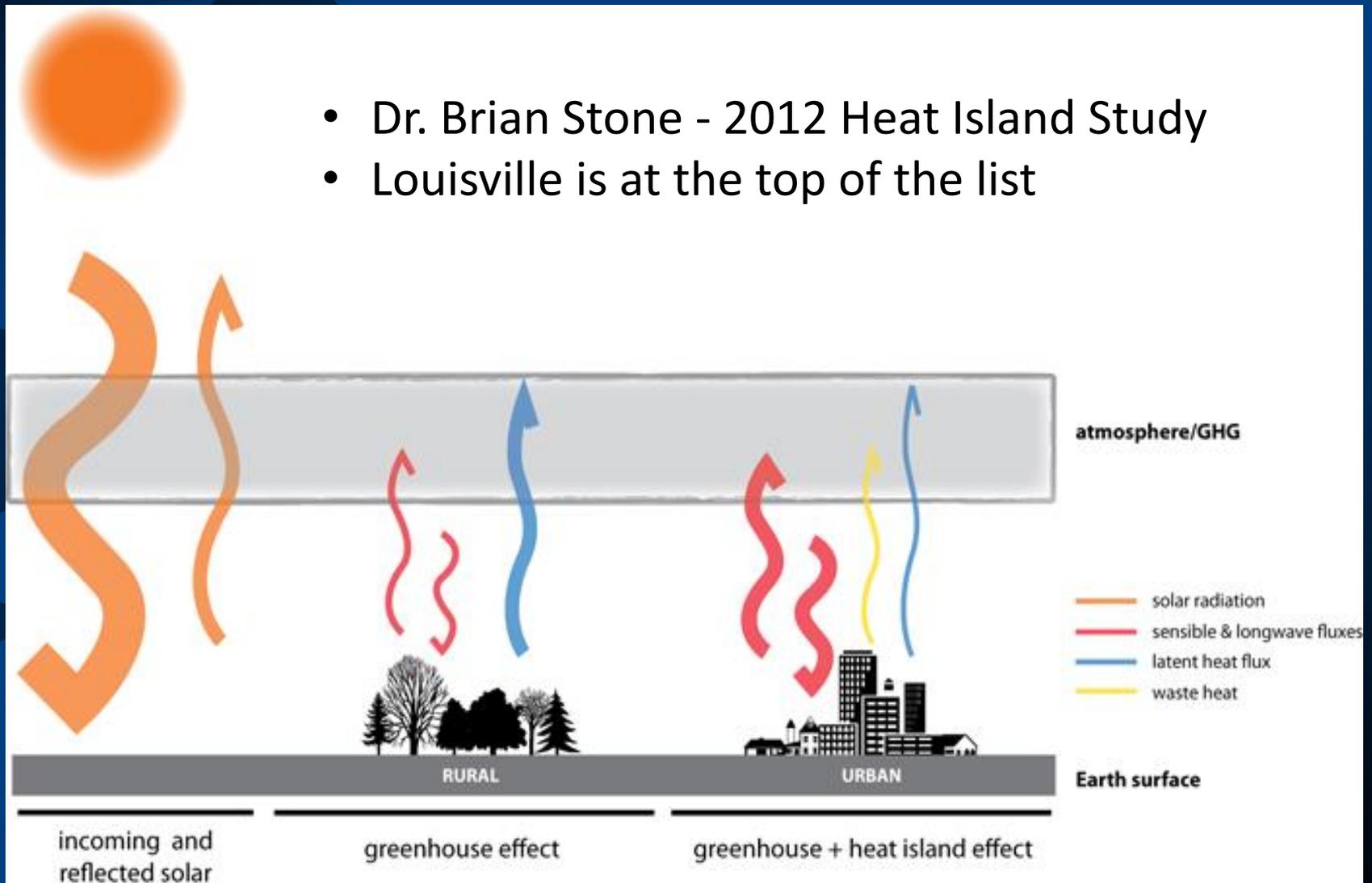
### *2013 Progress Report*

- Goals strengthened
- Baseline and target metrics established

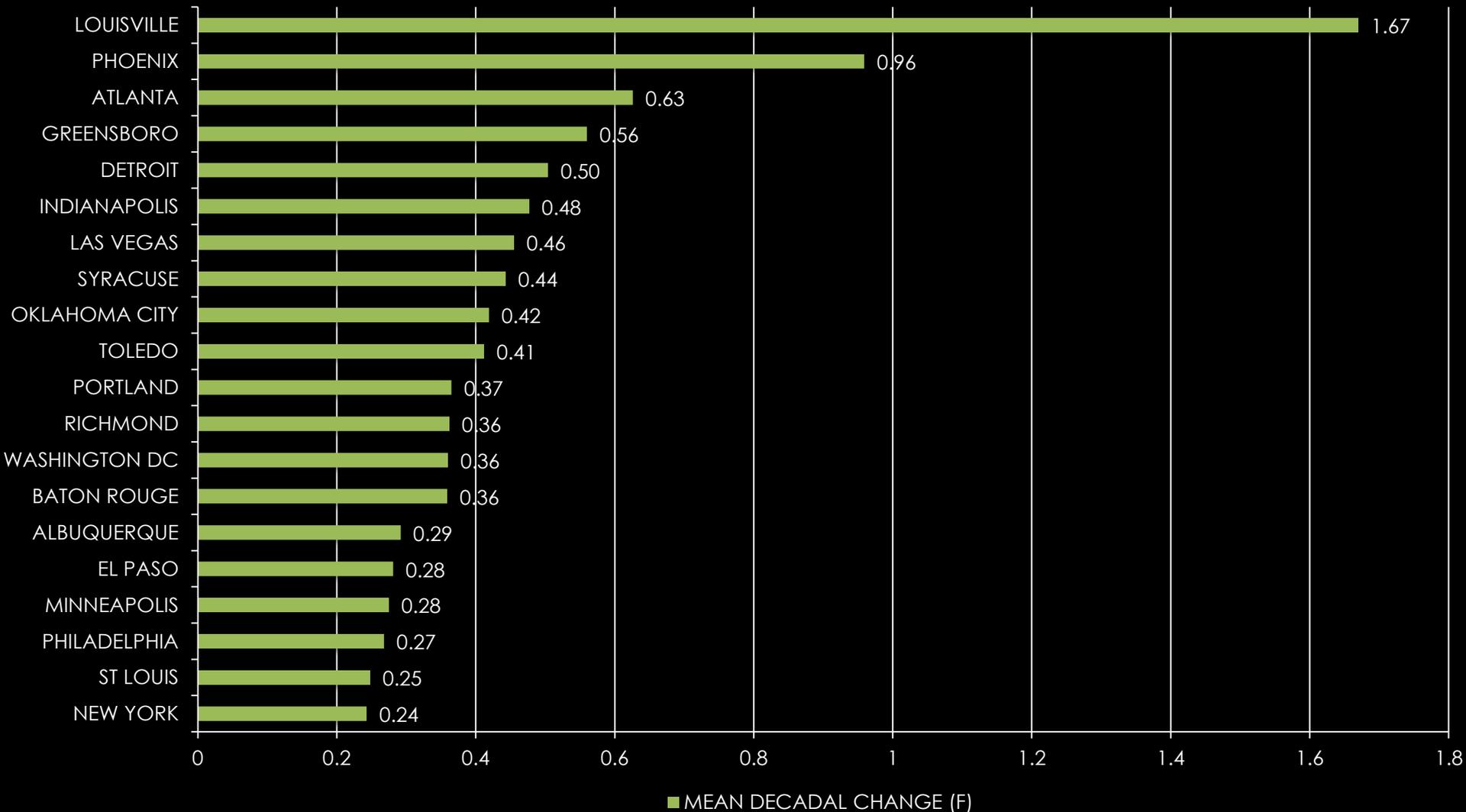


# Urban Heat Island Study

- Dr. Brian Stone - 2012 Heat Island Study
- Louisville is at the top of the list



# TOP 20 MOST RAPIDLY GROWING URBAN HEAT ISLANDS IN UNITED STATES: 1961-2010

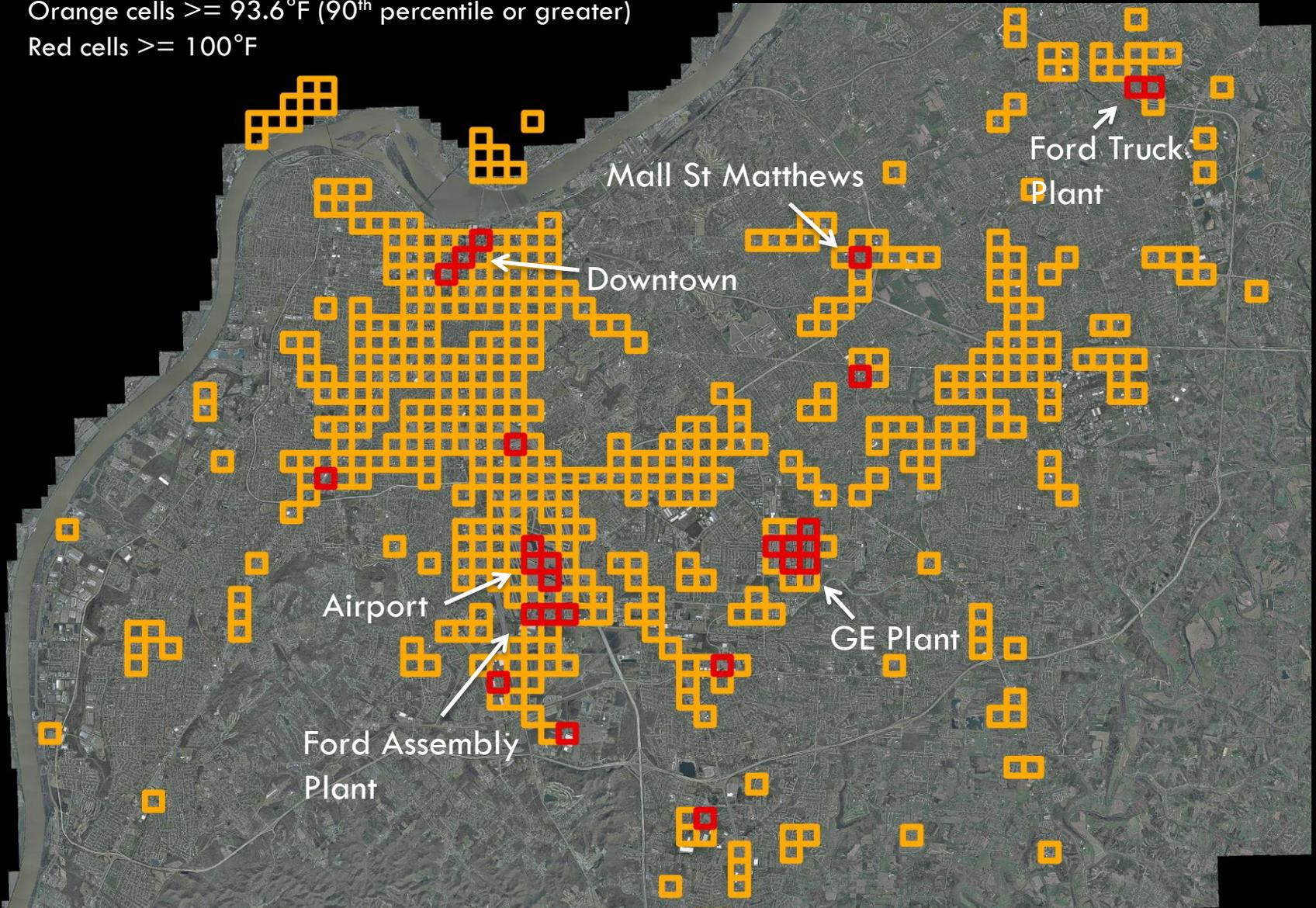


SOURCE: URBAN CLIMATE LAB, GEORGIA INSTITUTE OF TECHNOLOGY

# Surface temperature hotspots

Orange cells  $\geq 93.6^{\circ}\text{F}$  (90<sup>th</sup> percentile or greater)

Red cells  $\geq 100^{\circ}\text{F}$



26 cells exhibit average temperatures in excess of  $100^{\circ}\text{F}$  – significant hotspots are highlighted

# Urban Heat Island Grant Project

- Funded through private grants
- Surface temperature analysis
- Land cover assessment
- Climate modeling
- Health impacts and population vulnerability assessment
- Heat mitigation plan
- Community engagement – planned and underway



# Urban Heat Island Management Plan

## Data will inform policy decisions

- Establish a baseline for improvement
- Instill heat considerations in all development
- Implementation and next steps



# Tree Canopy Assessment

- Parallel project for reforestation
- Louisville Metro Government funding \$50K
- Louisville Metropolitan Sewer District funding \$50K
- Green infrastructure incentives
- Tree Advisory Commission

Aligns with Sustain Louisville and Mayor's strategic goals to promote quality of life and quality of place!





**Thank you!**

**Louisville Metro Office of Sustainability**

[www.louisvilleky.gov/sustainability](http://www.louisvilleky.gov/sustainability)

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